Miniaturized Ka-band Transmitter for CubeSat Applications

Completed Technology Project (2017 - 2018)

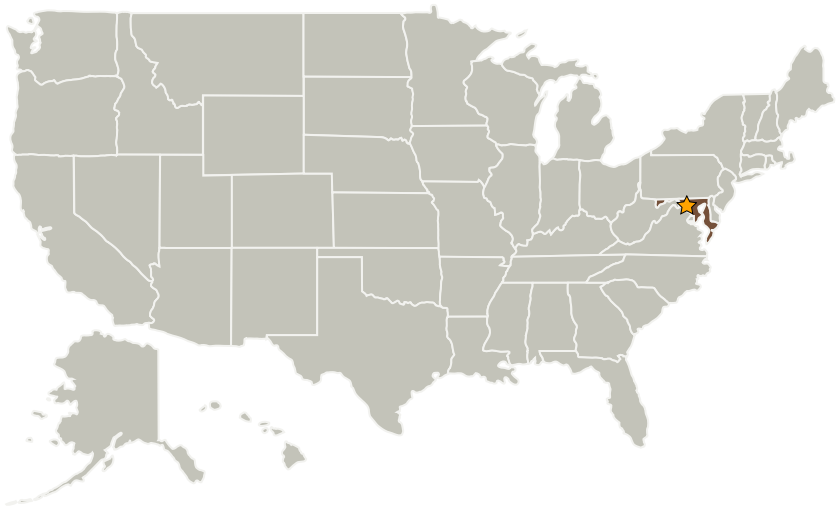
Project Introduction

Miniaturized, low power Ka-band transmitter for CubeSat missions.

Anticipated Benefits

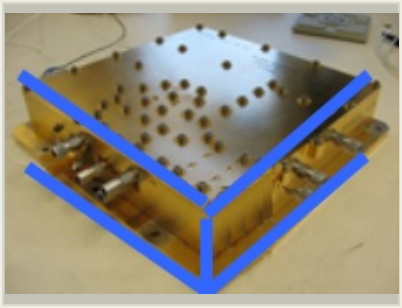
This technology enables Science missions requiring communications solutions for Smallsats/ CubeSats/ Landers. Radiation tolerant and highly reliable by design.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★Goddard Space Flight Center(GSFC)	Lead Organization	NASA Center	Greenbelt, Maryland

Primary U.S. Work Locations
Maryland



Design

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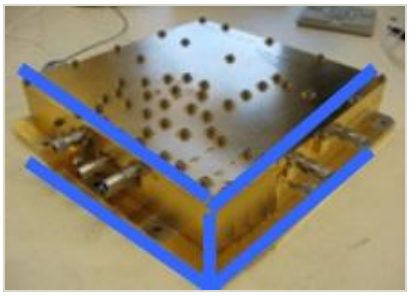
Images



ka_band
Design
(https://techport.nasa.gov/image/28232)

Organizational Responsibility

Responsible Mission Directorate:

Mission Support Directorate (MSD)

Lead Center / Facility:

Goddard Space Flight Center (GSFC)

Responsible Program:

Center Independent Research & Development: GSFC IRAD

Project Management

Program Manager:

Peter M Hughes

Project Managers:

Wesley A Powell
Timothy D Beach
Lavida D Cooper

Principal Investigator:

Wei-chung Huang

Co-Investigators:

Jeffrey M Jaso
Englin Wong

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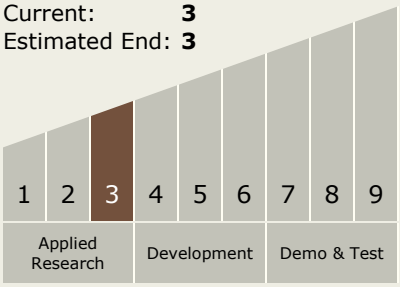
Technology Maturity (TRL)

Start: **3**
Current: **3**
Estimated End: **3**



Technology Areas

Primary:

- TX05 Communications, Navigation, and Orbital Debris Tracking and Characterization Systems
  - TX05.2 Radio Frequency
    - TX05.2.7 Innovative RF Technologies

Target Destinations

Earth, The Moon, Others Inside the Solar System